EXECUTIVE ORDER U-R-015-0369 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2018	JFPXL15.9T4U	15.9	Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Electror Turboch Catalyst, S	nic Direct Injection, Engli larger, Charge Air Coole elective Catalytic Reduc Oxidation Catal	r, Diesel Oxidation tion - Urea, Ammonia	Loader, Tractor, and Other Industrial Equipment				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION STANDARD		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER	CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
ELSE > 560 kW	Tier 4 Final	STD	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A
		CERT	0.01	2.4		0.03	0.02	-		

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

\_ day of September 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

U-R-015-0369-1

## **Engine Model Summary Template**

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4.Fuel Rate: 5.Fuel Rate: 7.Fuel Rate: 8. Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM mm/stroke@peak 9.Emission Control 3.BHP@RPM **Engine Family** 1.Engine Code 2.Engine Model (lbs/hr)@peak torqueDevice Per SAE J1930 (SAE Gross) (for diesel only) (for diesels only) (SEA Gross) torque DDI ECM TC CAC DOC SCR-u AMOX 448 JFPXL15.9T4U F3JFE613B\*B 764 @ 2100 376 N/A 2459@ 1500 NA F3JFE613B\*B DDI ECM TC CAC DOC SCR-u AMOX JFPXL15.9T4U 374 NA F3JFE613A\*V F3JFE613A\*V 764 @ 2100 2459 @ 1500 448 NA

\* new engine code